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ABSTRACT

Recent program planning literature involving adult education has attempted to draw upon techniques from marketing management. Most of the literature has, however, not explored the relationship between adult education program decision needs and fundamental marketing concepts. Adult educators and marketing managers are conducting similar daily functions in institutional settings constituting a more comparative than contrasting framework. This convergence is derived from two major marketing discipline concepts, the marketing concept (philosophical in orientation) and the marketing mix (operational in orientation). The marketing concept centers on meeting consumer demands while marketing mix gives a management decision framework to handle four core marketing decisions. These marketing decisions are (1) what products or services (courses) to develop and present to the potential participant, (2) what price structure to use for the courses, (3) where the courses should be distributed, and (4) what promotional methods would be most effective in attracting participants. A case study of the University of British Columbia Center for Continuing Education was done to analyze the relevance of marketing concepts in conjunction with two adult education program planning concerns, course length and pricing (correlate with the first two of the aforementioned core marketing decisions). It was found that at this institution the course length and not the course cost was the major factor affecting participant enrollment. (EM)

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COURSE LENGTH VERSUS COURSE PRICE:

MARKETING FACTORS IN PROGRAM PLANNING

by

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I. INTRODUCTION

Recent program planning literature involving both the field and discipline of adult education has attempted to draw upon various techniques from an apparent parallel subject -- marketing management. Most of the literature has, however, not explored the relationship between adult education program decision needs and fundamental marketing concepts.

To overcome this interdisciplinary gap, two major marketing concepts, one philosophical -- the "marketing concept", and one operational, the "marketing mix" -- will be explored for their adult education program planning usefulness. Drawing upon the latter relationships, the paper will conclude with a case study involving the "marketing mix" as the latter concept pertains to two major programming concerns: course price and course length.

II. ADULT EDUCATION AND MARKETING MANAGEMENT: CONCEPTUAL FRAMEWORK

1. The Rationales

Interest in marketing management as expressed by adult educators has been formed by two comparative-based rationales: an institutional rationale and a functional rationale.

The institutional rationale defines similar organizational characteristics between the adult education and marketing management fields. For example, both institutions: (1) deal with the general public who, in a sense, "purchase" available services (products) in like manner; (2) are organized with line and staff personnel who administer, develop, and present these services to the general public; (3) are faced with the problem of marketing services which must sucessfully compete for a portion on the consumer's limited budget, and; (4) will remain viable within the structure of a larger organization only if both "market" their services successfully.

Given the above institutional characteristics, one would expect that functional similarities should naturally flow. The latter relationship is called the functional rationale. In effect, both adult educators and marketing managers are faced with the same day-to-day duties. Emphasis and concern may vary for specific duties or functions, but they nevertheless exist.

The key functions would include: (1) program development; (2) program pricing; (3) advertising and sales promotion considerations, and; (4) determination of the location for program presentation (distribution functions).

Clearly then, adult educators and marketing managers are conducting their daily functions in institutional settings constituting a more comparative than contrasting framework. This latter convergence is, however, based on a deeper premise and derived from two major marketing discipline concepts: one philosophical in its orientation and one with an operational context.

2. The Marketing Concept

King has described the philosophical concept as the "marketing concept". It

> "is defined as a managerial philosophy concerned with the mobilization and control of total corporate effort for the purpose of helping consumers solve selected problems in ways compatible with planned enhancement of the profit position of the firm. More specifically, the marketing concept involves:
>
> 1. companywide managerial awareness and appreciation of the consumer's role as it is related to the firm's existence, growth, and stability,
>
> 2. active companywide managerial awareness of and concern with interdepartmental implications of decisions and actions of an individual department. Also, it is recognized that such actions may affect the company's equilibrium with its external environment, for example, its consumers, its competitors, etc,
>
> 3. active companywide managerial concern with innovation of products and services designed to solve selected consumer problems,

4. general managerial concern with the effect of new-product and service introduction, both present and future, and recognition of the potential rewards which may accrue from new product planning,

5. general managerial appreciation of the role of marketing intelligence and other fact finding and reporting units within and adjacent to, the firm in translating the general statements presented above into detailed statements of market potentials, targets, and action,

6. companywide managerial effort, based on participation and interaction of company officers, in establishing corporate and departmental objectives, which are understood by, and acceptable to, these officers,

7. formal short and long-range planning of corporate goals, strategies, and tactics, resulting in defined and coordinated efforts of the firm's functional areas,

8. creation, expansion, termination, or restructuring of any corporate functions as deemed necessary in mobilizing, utilizing, and controlling total corporate effort toward the solution of selected consumer problems in ways compatible with enhancement of the firm's profit position." [1.]

This philosophical concept and its effect on marketing management not only bears a close relationship to similar statements presented by adult educators, it is also the foundation for the previously discussed institutional and functional rationales.

Any variations based on the above philosophy between the adult educator and the marketing manager would, for the most part, lie in the last portion of the marketing concept statement: "...planned enhancement of the profit position of the firm". Adult education operations are (with exceptions) normally considered as part of the economy's nonprofit sector.

However, just because objectives may vary between private and public institutions, the operational outcomes based on an apparently similar philosophy would still remain quite compatible.

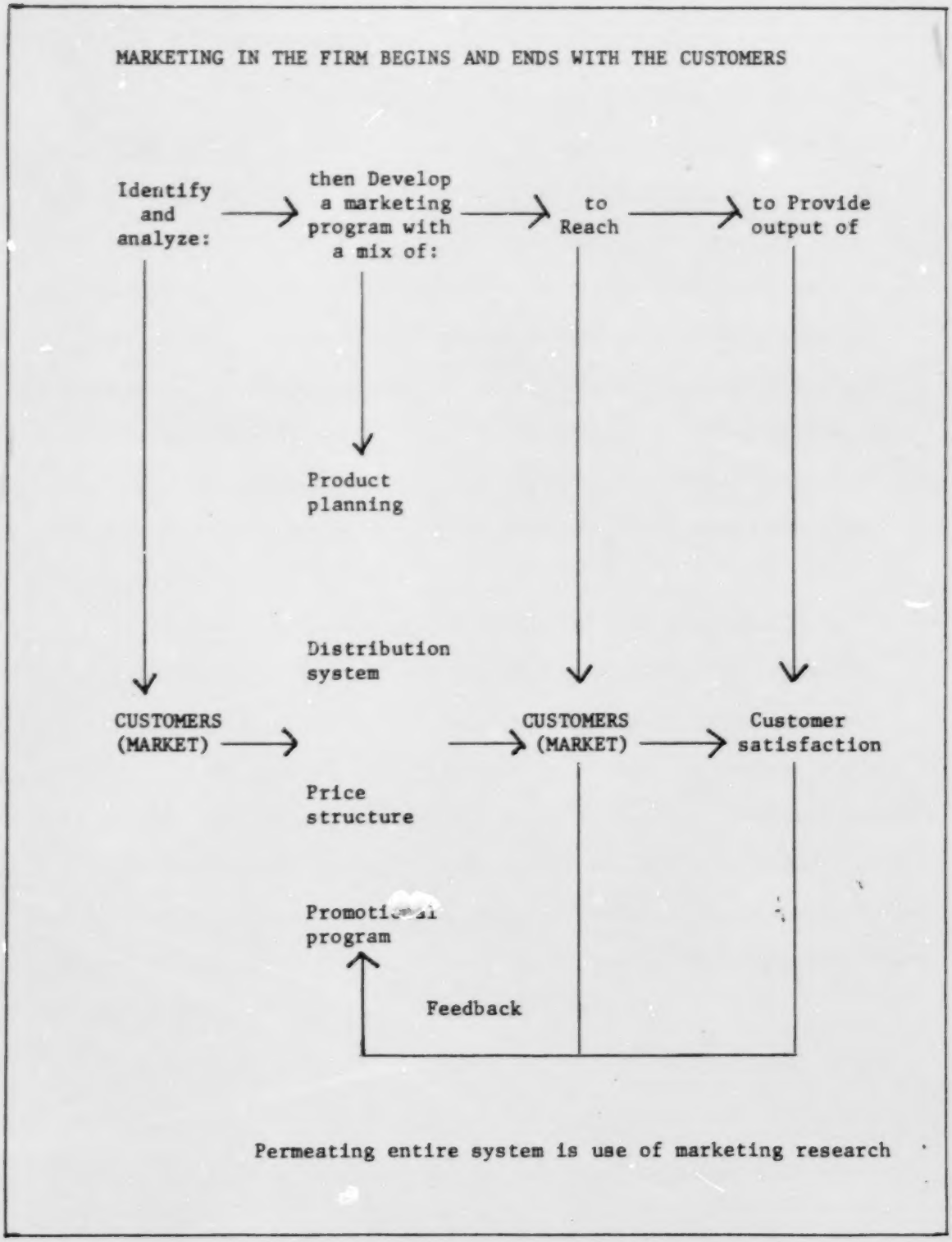
Given the above philosophical foundation for market-oriented decisions, a four-fold operational classification concept has emerged and is used for product/service planning by marketing managers. This classification concept, the marketing mix, reasserts the marketing concept through the development of a step-by-step procedure which allows adult educators, including program planners, to concentrate their efforts on servicing a specific clientele and, at the same time, to meet institutional (profit or nonprofit) objectives.

3. The Marketing Mix

This concept, as stated by Stanton and Sommers, "is used to describe the combination of the four inputs which constitute the core of marketing systems: the product (course), the distribution (best location considerations), the price structure, and the promotional activities". [2]

As presented in Figure 1 (page 6) the adoption of the marketing mix to management decision-making is encouraged as such decisions are considered within a logical system, whereby "decisions in one area usually affect action in the others". [3] Thus, when one attempts to "identify and analyze customers (markets)" or, as it is stated in adult education literature, to identify participant or community needs, one administers this process through the marketing mix. In this manner, an adult educator can, using marketing research: (1) identify what courses

FIGURE I



Source: Stanton and Sommers, p. 27

participants want, including course length, topic, instructor, etc.; (2) where they would like these courses offered; (3) what would be an acceptable price range, and; (4) the type of promotion needed to inform potential participants. From the institutional side, the adult educator can now begin to match researched-based expected participant needs for each of the above marketing mix categories with the available institutional resources as the latter resources relate to product/service, place of presentation, course price and promotion.

Although the above two concepts -- the marketing mix and the marketing concept -- appear to have direct relevance in adult education program planning, it is not until one analyzes the marketing unit in conjunction with two important adult education program planning concerns -- course pricing and course length -- that this relationship becomes workable. Such an analysis is presented in the following sections of this paper.

III. COURSE PRICING AND LENGTH DETERMINATION -- PROGRAM PLANNING CONCERNS

Program planners must face two major decisions for every course they develop and wish to present to their clientele: "how much to charge for the course, and how long should the course be?"

As easy as these questions are to state, the decisions for each are most difficult. Controversy, both at the theoretical and practical levels, abounds. Many pricing decisions are simply made on a traditional approach developed by the institution (usually financial or accounting in their orientation), other pricing decisions attempt to "price what the market will bear". In actual fact, little research or consistency within adult education institutions can be found when the pricing decision is discussed.

Course length considerations usually take a combination of two approaches. The first is formula based and related to a financial break-even consideration, the other ignores consumer's needs for immediate results and assumes that "the more (or longer) the better; after all, it is, or at least appears to be, a better deal for the participants".

The following analysis draws upon some recent price and course length studies. It attempts to indicate why course planners should become aware of alternative participant based needs, and be concerned about institutional traditions toward price and length decisions.

1. Course Pricing

As noted by Lamoureux [4], the continuing argument about what

to charge for a course is based on two definable analytical alternatives.

The first alternative is formed on assumptions found in economic demand theory where price is assumed to influence buyer choice because price serves as an indicator of purchase cost. That is, the purchaser of the good or service is assumed to have perfect information about the range of prices he faces as well as a want satisfaction matrix of comparable product or service alternatives. Maximum satisfaction for a given budget constraint can thus be attained.

The second alternative is based upon consumer behaviour research, indicating that there is no simple explanation of how price influences an individual buyer's purchase decisions. Consumer behaviour analysts therefore ask the following question: "Does the price of a product convey only the value to be exchanged (as in economic theory), or does price also convey other information that is used by the consumer" [5] such as product or service quality? Further complications have been noted if one assumes that price is only one of many market "cues" interacting with such factors as product or service characteristics, institutional image, prior purchase experience and promotional images. [6]

Between these conflicting price theories stands the adult education program planner. He must, as his marketing function dictates, make a pricing decision involving his costs to produce the course as well as the potential effect on the participants. Whether to develop a pricing formula that has as its underlying philosophy a "cost to the consumer" framework, a competitive strategy framework, or a combination of both becomes a major administrative task.

2. Course Length

Although one should not discount other course factors such as: the subject matter, the instructor, and learning materials, it would seem, based on studies by Verner and Neylan,[7] Dickinson and Verner,[8] and Lamoureux,[9] that course length is a fundamental participant decision criterion, and therefore a major concern for program planners.

Dickinson and Verner noted "that the pattern of attendance in many adult classes is characterized by a sporadic but persistent decline",[10] with an average daily attendance (ADA) for all 98 courses and 2075 individuals in their study of 63.5%.[11] Furthermore, "the peak ADA of 87 per cent was reached in the second session followed by an irregular downward trend. The ADA dropped below 80 per cent at the seventh session, below 70 per cent at the tenth session, and after the twenty-third week did not exceed 50 per cent".[12] The latter outcome was consistent with the Verner and Neylan study.

Lamoureux analyzed the course length problem in a somewhat different manner than the above authors. Rather than concentrating on participant attendance patterns <u>after</u> course enrollment, it was of interest to determine if length of course had an apparent (and similar) negative effect, on course enrollment per se. Fundamentally, the above authors analyzed outcomes after the fact, whereas, the analysis below looked at the apparent effect of course length on a participant's decision to enroll prior to the course being presented.

Six hundred and ninety-nine courses offered between 1971 and 1973 at the University of British Columbia Centre for Continuing

Education were used as the bases for data acquisition. Because of differential program planning between professional and general interest courses (discussed in the next section), average attendance figures were developed for both course types. Professional courses are those developed for individuals who generally take courses for job-oriented reasons (school teachers, engineers, lawyers, etc.), whereas all other courses were classified for general public consumption.

Table 1 (page 12) represents the outcome for 381 general interest courses. Eight hourly contact segments were created with average attendance for each category. Clearly, there was a downward attendance enrollment pattern as the length of the course increased, and this pattern was regular. The highest attendance figures occurred in the 6 or less contact hour category, the lowest occurred in the 16 and above contact hour categories.

Table 2 (page 12) presents similar information for 318 professional courses. Although the regular pattern experienced with general interest courses is missing, there is a definite enrollment gap between course categories in the less than 16 contact hour area when compared to courses having 16 or more contact hours.

Although this enrollment study concentrated on only one educational institution, it did confirm the Verner, Dickinson and Neylan results.

Clearly then, the problems of course price and course length are two major decision factors for adult education program planners. These factors also coincide with two decision variables in the marketing mix: the product/service and the price decisions, which are also perceived to be equally important within a marketing management context.

TABLE 1

AVERAGE CLASS ENROLLMENT FOR GENERAL INTEREST COURSE

Contact Hour Segments	Average Enrollment	Number of Courses
1 - 6 Hours	141.6 (participants)	47 (courses)
7 - 8	46.6	30
9 -10	33.4	60
11 -13	31.8	71
14 -15	27.9	34
16 -19	17.6	27
20 -25	19.9	92
26 or more	12.0	20
Sub-Totals	42.8 (participants)	381 (courses)

TABLE 2

AVERAGE CLASS ENROLLMENT FOR PROFESSIONAL COURSE

Contact Hour Segments	Average Enrollment	Number of Courses
1 - 6 Hours	52.0 (participants)	57 (courses)
7 - 8	54.0	41
9 -10	64.2	31
11 -13	61.1	27
14 -15	46.1	32
16 -19	28.9	22
20 -25	19.7	68
26 or more	25.4	40
Sub-Totals	41.8 (participants)	318 (courses)

How an individual solves these two specific problems (keeping course distribution and promotional effort as a constant for this study) relates immediately back to the marketing concept. That is, will the program planner be consumer oriented in his decisions concerning course price and length and therefore really attempt to determine what is most important to potential participants, or will the decision be only based within an institutional framework?

In order to explore the above question, the final portion of the paper will present a case study describing how program planners in a large university continuing education department make course price and length decisions. Subsequent participant reaction based on the latter program planning decisions is then analyzed.

IV. A SPECIFIC COURSE LENGTH/PRICE DECISION PROCESS: THE UNIVERSITY OF BRITISH COLUMBIA CENTRE FOR CONTINUING EDUCATION

Previous sections of this paper presented the reader with a conceptual background linking two disciplines having strong ties to similar field problems - adult education and marketing management. Using this link as an analytical framework, the following two sections, IV and V, will describe a program length/price decision process in one major North American university extension department, and the participant (consumer) reaction to this decision process. From this rather detailed description and subsequent analysis, the reader should be able to draw comparisons and contrasts with his specific continuing education institution.

Although a generalization to other adult education institutions is not an objective of this case study, it should be noted that prior seminars conducted by the author for adult education personnel in a wide variety of institutions would lead one to believe that the program decision process discussed below - although specific in nature - has a close resemblance to similar processes in other large continuing education organizations.

1. Background To The Process

Every year, program planners and Centre administrators meet to discuss course length and fee structures. Consideration is given to changes in direct or "out-of-pocket" and overhead costs that have occurred since the previous structure decisions. Any cost or course

length variation that must be considered for the forseeable future are also discussed.

Budget variations amounting to general additions and deletions or those related to specific content areas are analyzed for their impact on given program areas or potential program considerations. For example, there was a substantial budget cut during the Summer of 1973. The basic course pricing/length formula was immediately reconsidered in relation to this budget cut.

Feedback from participants also weighs in the course length/price process. If it is discovered that certain programs draw a lower but highly interested socio-economic group, consideration is given to lower than normal (formula based) fees. Attempts are made to cut expenses for programs in such cases. For example, a cost cutting procedure would be the reduction of course length (contact hours). On the other hand, if one notices that a program may draw a professional group of participants whose educational expenses are being paid by their organizations, it is conceivable that higher than normal fees would be charged.

Competition in the local geographical area from other adult education institutions is the third consideration. Competitive publicity brochures are scrutinized to determine if other programs are different than, similar to or exactly the same as the Centre's. From this analysis, fee and course length variations among other adult education institutions aid in determining their potential effect on the Centre.

A final factor in this process may be defined as a general feeling or attitude toward the overall situation as it is and as it may

become. The combined intuitive knowledge of these professional program planners is used to acquire "gut feelings" about specific courses, fees and course length. The above process has led to the present pricing philosophy which may be defined as a "minimum fee attitude". That is, the Centre "does not try to maximize profit".

2. Mechanics of Course Length/Price Decisions

The Centre program planner has six basic steps to follow:

(1) Define a community educational need that may be satisfied by a program which could be given through the Centre;

(2) Develop ideas about program format and content;

(3) Form some general opinion about the participants -- general public or professionally oriented;

(4) Decide on program number contact hours or sessions; date and place of the program, and; instructor;

(5) Do a rough budget to see if the potential program is financially feasible.

(6) Using a standard fee formula, the program fee is then determined by multiplying the number of contact hours for the program by one of two dollar figures -- one for professional programs and one for general programs. The latter figure is compared with the expected expenses. If the standard figure derived from the fee formula is equal to or greater than the dollar expenses (less grants, if any), the program is a potential "go".

Not all program fees fall within the above range. Some must be priced at a lower level. This, however, does not mean that they will be cancelled. If the program planner can give an acceptable rationale for having the course, it is generally accepted by the Centre administrators.

3. Conclusion

Lamoureux developed a three-part pricing strategy for adult education programs.[13] In essence, the program planner could use a backward - cost pricing system whereby he only considers the relationship between the out-of-pocket (variable) costs, the overhead (fixed) costs and the number of students needed to just pay for the program (break-even point). No consideration is given to course fee variations due to the type of participant.

Secondly, he could act somewhat like a product marketing manager and, after having analyzed the market for the adult education program, construct a pricing schedule which not only attracts the participants, but also earns the highest possible monetary return.

Finally, he could combine the above two strategies. On the one hand, the historical use of backward - cost pricing by adult education institutions could be adopted as a safety feature; whereas knowledge gained from community-market analysis could aid the program planner in developing selective price schedules for potential groups of participants (market segments).[14] He therefore combines the need to formally present a budget-oriented break-even factor for each program to satisfy a philosophy of

"reasonable prices" and at the same time could indicate where "interesting" and higher monetary returns may be earned.

It is clear that the U.B.C. Centre for Continuing Education has organized itself in close proximity to the third strategy. As discussed above, the Centre works on a backward-cost or break-even technique. This technique is, however, varied according to the type of participant who may take the specific program. Thus, the program prices are generally higher for the professional groups and lower for the general public.

V. COURSE LENGTH VS. COURSE PRICE: A CASE STUDY

A strongly expressed opinion by practitioners in the adult education field that course price (fee, tuition, etc.) is a major, if not the major criteria affecting individual participation, causes an obvious dilemma. Most course prices are tied to some form of participant contact hour/cost-per-hour formula. Thus, if the adult educator needs to increase fees to cover course costs, there is a tendency to increase contact hours ("better overall deal for the participant"). On the other hand, the previously stated studies (see pp. 10-13) appear to indicate individuals usually prefer shorter courses. Thus, the adult educator must make a decision: unilaterally shorten course hours and state relatively high fees, thus potentially losing participants due to higher course prices; or attempt to market the course on a "more hours" theme - which would most likely lead to a potential loss of participants either by way of reduced enrollment or lack of attendance.

Through the cooperation of the University of British Columbia Centre for Continuing Education, data were gathered on 937 courses listed in the Centre's various promotional brochures and year-end statistical summaries. These courses constituted offerings to the community for a period of six fiscal terms between Fall, 1971 and Summer, 1973.

Three separate but related analyses were performed on the data:

a. Based on the previously described course fee and length decision process (part IV) it was determined whether there were significant differences in the fee schedules and course

contact hours between the professional and general courses;

b. A generalized test to determine if there were other (not identifiable) non-price "cues" affecting consumer decisions for Centre courses;

c. A parital correlation analysis to control for course length to ascertain a more specific relationship between course price and length.

1. Professional Versus General Courses: Two Separate Markets

It was clear that the University of British Columbia Centre for Continuing Education had organized itself around the third pricing strategy. The Centre worked on a backward-cost or break-even technique, but varied this procedure according to the type of participant who would enroll in the specific course. Two major participant types were considered for their strategy: the professional type, that is, the individual who attended courses which were related to a job skill area (teacher, engineer, lawyer, etc.) and, the general student type who attended leisure-oriented courses.

To determine if, in fact, the decision strategy adopted by Centre program planners reflected this perceived participant difference in both course prices and course lengths, a test of significance was conducted on the latter factors. As noted in Table 3 (page 22), there was a significant difference between the prices charged for general and professional courses ($X^2 = 70.3$; $df = 7$; $p < .005$). General courses reflected a lower price schedule with 61.2% of the courses priced at

less than $21 while 56.2% of the professional courses were priced above $25.

Table 4 (page 22) also indicated that significant contact hour variations occurred between general and professional courses ($X^2 = 20.8$; $df = 6$; $p < .005$). These variations were, however, not as sharp as the course prices, thus indicating a definite price differentation strategy.

Because the above observations appear to delineate two market segments, the following three sections of this study will conduct separate tests for both professional and general courses.

2. Non-Price Cues Affecting Participant Purchasing Behaviour

An obvious question about the relationship between course prices and other non-price cues (such as course length) must be asked: "Is there any significant difference in the prices of courses that were conducted ("go's") as opposed to those courses that failed to be given ("no-go's")? Although a simple question on the surface, it cuts to the core of the topic. If the "no-go" courses have significantly higher prices than "go" courses, then one could reasonably conclude that course price (and not course length - for example) is really a fundamental cue affecting participant purchasing behaviour.

Of the 937 courses analyzed for this study, 699 were "go" and 238 were "no-go" courses.

A T-test was separately concluded for both professional and general courses between their respective "go" and "no-go" price outcomes. For both professional and general courses there was no significant price difference between the "go" and "no-go" courses. (Table 5, page 23).

TABLE 3

COURSE PRICE VARIATIONS BETWEEN PROFESSIONAL AND GENERAL COURSES

Course Price	General Courses	Professional Courses
Less than $6	7.8%	6.7%
$6 - $ 9	12.1	9.5
$10 - $15	20.6	11.6
$16 - $20	20.7	10.7
$21 - $25	6.1	4.3
$26 - $30	8.1	8.8
$31 - $50	12.8	10.8
$51 or more	11.8	36.6
Total	100.0%	100.0 %
Number of Courses	397 courses	328 courses

$X^2 = 70.3$; $df = 7$; $p < .005$

TABLE 4

COURSE CONTACT HOUR VARIATIONS BETWEEN PROFESSIONAL AND GENERAL COURSES

Contact Hours (#)	General Courses (%)	Professional Courses (%)
5 or less	8.3%	5.4%
6 - 9	27.1	35.1
10 - 15	26.6	17.9
16 - 20	24.6	20.5
21 - 25	5.8	7.9
26 - 30	3.1	6.4
31 or more	4.5	6.9
Total	100.0%	100.0%
Number of courses	398 courses	331 courses

$X^2 = 20.8$; $df = 6$; $p < .005$

TABLE 5

T-TEST BETWEEN THE PRICE OF "GO" AND "NO-GO" COURSES

Professional Courses

TEST CATEGORIES		T-PROBABILITY*	NUMBER OF COURSES
YEAR:	1971 - 1972	.280	231
	1972 - 1973	.173	185
TOTAL		.712	416

General Courses

TEST CATEGORIES		T-PROBABILITY*	NUMBER OF COURSES
YEAR:	1971 - 1972	.745	207
	1972 - 1973	.430	314
TOTAL		.645	521

* If T-Probability is $< .05$ it is usually concluded that the sample means are significantly different.

The above outcome would appear to indicate generally that both types of participants do not necessarily accept or reject courses solely because of price. That there are, in fact, other reasons (cues) for attendance becomes highly likely.

3. The Relationship Between Course Price and Course Length On Enrollment

If one continues to assume that course prices, rather than course lengths, are a significant determinant as far as motivating a person to attend, then an interaction between these factors must be considered.

Two statistical methods will be used to test if the fee structure as it is presently used at the Centre has any significant effects on program enrollment. The first test is defined as a partial correlation analysis. Since the data is of an ex-post facto nature in which the independent variables (course price and course length) have occurred, partial correlation analysis is a standard statistical method used to nullify variance in a dependent variable (course enrollment) that is presumably "caused" by one or more independent variables that are extraneous to the particular relation under consideration. In our study, the extraneous independent variable is course length, and this variable will be controlled in order to ascertain the "real" relation between course price and enrollment.

The formula for the coefficient of partial correlation is:

$$r_{12.3} = \frac{r_{12} - r_{13}r_{23}}{\sqrt{1 - r_{13}}\sqrt{1 - r_{23}}} \qquad (1)$$

where: r_{12} = price by number of participants (enrollment)

r_{13} = price by length of course

r_{23} = enrollment by length of course

The second statistical test will be a multiple forward stepwise regression analysis, i.e., the construction of a linear estimating equation for predicting enrollment (Y) for fixed values of course length (X_1) and course price (X_2). Expressed algebraically, our model is:

$$Y = \alpha + B_1 X_1 + B_2 X_2$$

where: α mean of Y population when X_1 and X_2 are zero.

β_1 change in Y population mean per unit change in X_1.

β_2 change in Y population mean per unit change in X_2.

Two computer runs were conducted: one for professional courses and one for general interest courses. The objective was to see if course fees (X_2) occur as a significant predictor variable in the resulting equation.

a. The Professional Courses - Partial Correlation Test

A computer run was used to determine the correlation matrix as in Table 6, below.

TABLE 6

CORRELATION MATRIX -- PROFESSIONAL COURSES

Variables	Contact Hours	Enrollment	Fee
Contact Hours	1.0		
Enrollment	(-).2246	1.0	
Fee	.6705	(-).1914	1.0

Therefore, using formula (1) above (p. 24):

where: $r_{12} = (-)\ .1914$

$r_{13} = .6705$

$r_{23} = (-)\ .2246$

the relationship between course fee and course enrollment, controlling for course length, was not significant, that is, $r_{12.3} = (-).0580$ with N = 326, d.f. = 329 and p = not significant. Thus, although the relationship between course price and enrollment was negative, this relationship was so small as to be statistically insignificant. One must conclude that the pricing formula used at the Centre for the professional courses had no overall effect on programme enrollment.

b. The Professional Courses - Regression Analysis

This statistical procedure also rejected price as a significantly contributing independent variable. The equation derived by using this procedure is as follows:

$Y = 60.7818(-)1.2238(X_1)$ where X_1 = length of course

Thus, course length and not course price became the significant predictor variable in the regression equation.

c. The General Interest Courses - Partial Correlation Test

A computer run was used to determine the correlation matrix as in Table 7, page 27:

TABLE 7

CORRELATION MATRIX -- GENERAL INTEREST COURSES

Variables	Contact Hours	Enrollment	Fee
Contact Hours	1.0		
Enrollment	(-).2246	1.0	
Fee	.6705	(-).1914	1.0

Therefore, using formula (1, p.24) above, the relationship between course fee and course enrollment, controlling for programme length was not significant, that is,

$r_{12.3} = .0050$ with N = 395, d.f. = 392, p = not significant.

One must therefore conclude that the pricing formula used by the Centre for the general interest courses had no overall effect on course enrollment.

d. The General Interest Courses - Regression Analysis

This statistical procedure also rejected price as a significantly contributing independent variable. The equation derived by using this procedure is as follows:

$Y = 74.5064(-)\ 2.1471(X_1)$, where X_1 = length of course.

Once again, course length and not course price became the significant predictor variable.

e. Further Comments

The partial correlation statistical methodology was also used to test the relationship between contact hours and enrollment, but controlling the effect of price. For both professional and general interest courses, the overall results coincided with those obtained previously, that is, length of course negatively affected course enrollment, and this effect was significant.

Professional Courses $R_{23.1} = (-).1409, \quad p = < .01$

General Courses $R_{23.1} = (-).1784, \quad p = < .01$

5. Summary

The analysis of data indicated that participants' behaviour toward courses was not, at least as far as the Centre for Continuing Education was concerned, significantly dictated by course fees. The T-tests between courses that failed to materialize ("no-go's") and the courses that were successful ("go's") were used to generally present this finding. Tests using partial correlation coefficients and multiple stepwise regression techniques further validated the finding.

Length of the course, as suggested by Verner and Neylan, Dickinson and Verner, and Lamoureux, was used as a basis to study a second relationship: that of length of course vs. participant behavior, or more specifically, potential for enrollment. The outcome of the previous studies concluded that course length negatively affected participant attendance while the course was in progress. The present

study further concluded that course length had the same basic negative effect on potential participants when the latter consider enrollment into a course. Correlation (full and partial) and linear regression equations were used to develop these findings.

VI. SUMMARY

This paper's objective centred on determining the relationship between marketing management and adult education. More specifically, concern was expressed about the lack of literature which concentrated on drawing together fundamental marketing concepts and their application to practical program planning problems. Two marketing concepts, one philosophical in its orientation and one operational, were explored. The "marketing concept" was presented as a method of institutional orientation which centred on meeting consumer demands. The operational concept, referred to as the "marketing mix", gave a management decision framework to handle four core marketing decisions: (1) what products or services (courses) to develop and present to the potential participant; (2) what price structure to use for the courses; (3) where the courses should be distributed, and; (4) what promotional methods would be most effective in attracting participants.

The first two factors were used as the major concentration for a case analysis relating the marketing mix to the needs of program planners. Factors three (distribution) and four (promotion) were left in abeyance for the sake of simplicity. With the aid of research gathered by Dickinson and Verner, Verner and Neylan, and Lamoureux, course price and course length problems were restated within a program planning context. An alternate conclusion as it related to price was stated, that is, price was not necessarily considered a "cost" factor in the eyes of participants.

Course length was analyzed from two directions. In the first

place, as the course contact hours expanded, attendance dropped (Dickinson and Verner). Secondly, a similar occurrence was observed when average enrollment was measured. As the number of contact hours became greater, the average number of participants who wanted the course decreased.

In order to give a realistic presentation of a "typical" large scale management decision process as the latter concerned course prices and course lengths, a full description of the U.B.C. Centre for Continuing Education program planning process was given. The final study measured the outcome of this decision process by analyzing participant enrollment as the latter was reflected in a statistical study of the course length/cost interrelationship. It was very clear at this institution that the course length and not the course cost was the major factor affecting participant enrollment. All other factors were held constant.

Although the total study started from a general premise that specific marketing concepts had relevance for program planning decision-making in adult education, it must be stated that care be taken in the adoption of marketing techniques and methods. The amount of data and related discipline studies are only emerging and therefore only a less than clear picture is yet available.

FOOTNOTES

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